

IN THE CLAIMS:

Please cancel Claims 9 and 10 without prejudice to or disclaimer of their subject matter.

Please amend Claims 1, 7, 8, 11, 12, 14, and 15 as follows. All claims in the application are being reproduced below in accordance with current U.S. Patent and Trademark Office requirements.

1. (Currently Amended) A punching device comprising:

a die member having a plurality of die holes formed therein;

a plurality of punch members which are caused to advance into the die holes to punch holes in a member to be punched;

an operating member having cam portions formed along a direction intersecting the direction of advancement of said punch members, said operating member being moved along the direction intersecting the direction of advancement of said punch members to cause by a conversion function of said cam portions said punch members to advance into the die holes; and

drive means for selectively causing advancement of said plurality of punch members by ~~changing the direction of movement~~ back and forth of said operating member; and

control means for controlling said drive means,

wherein said operating member is movable between a first rest position and a second rest position,

and said control means performs an initializing operation in which said operating member is moved to the first rest position when said operating member is located between the first rest position and the second rest position and said operating member is located nearer the second rest position than the first rest position, and said operating member is moved to the second rest position when said operating member is located between the first rest position and the second rest position and said operating member is located nearer the first rest position than the second rest position.

2. (Original) A punching device according to claim 1, wherein each of said cam portions has a straight groove and a cam groove for performing the conversion function, and wherein, when said operating member is moved in one of opposite directions, at least one of said cam grooves of said cam portions acts on one of said punch members to selectively cause the same to advance.

3. (Original) A punching device according to claim 2, wherein one of said cam portions has two cam grooves at its center, and straight grooves formed at opposite ends of each cam groove, and is used to control two of said punch members.

4. (Original) A punching device according to claim 2, wherein one of said cam portions has one cam groove at its center, and straight grooves formed at opposite ends of the cam groove, and is used to control two of said punch members.

5. (Original) A punching device according to claim 2, wherein one of said cam portions has one cam groove at its end, and a straight groove formed at an end of the cam groove, and is used to control one of said punch members.

6. (Original) A punching device according to claim 2, wherein:
one of said cam portions has two cam grooves at its center, and straight grooves formed at opposite ends of each cam groove, and is used to control two of said punch members;

another of said cam portions has one cam groove at its center, and straight grooves formed at opposite ends of the cam groove, and is used to control two of said punch members; and

a remaining one of said cam portions has one cam groove at its end, and a straight groove formed at an end of the cam groove, and is used to control one of said punch members, two of said punch members and three of said punch members being selectively caused to advance.

7. (Currently Amended) A punching device according to claim 1, wherein:
~~the cam portions of said operating member are sectioned in the order of a first rest area, a first punching area, a second punching area, a second rest area, a third punching area, a fourth punching area, and a third rest area;~~

said operating member is movable in a moving area sectioned in order of a first rest area, a first punching area, a second punching area, and a second rest area.

said operating member can be moved between the first rest area and the second rest area on the basis of a detection operation performed by means for detecting the position of said operating member under the control of operation control means for controlling said drive means; and

said operating member performs in the first punching area a punching operation for causing at least one of said punch members to advance into the corresponding die hole when moved from the first rest area to the second rest area, and performs in the second punching area a punching operation for causing said at least one of the punch members to advance into the corresponding die hole when moved from the second rest area to the first rest area.

8. (Currently Amended) A punching device according to claim 1 7,

wherein said operating member is movable in a moving area sectioned in order of a first rest area, a first punching area, a second punching area, and a second rest area, on the basis of a detection operation performed by means for detecting the position of said operating member under the control of operation control means for controlling said drive means; and

wherein said operation control means performs an initializing operation for moving said operating member to the second rest area when said operating member is located in the first rest area or in the first punching area, and that for moving said operating member to the first rest area when said operating member is located in the second rest area or in the second punching area.

Claim 9 (Cancelled).

Claim 10 (Cancelled).

11. (Currently Amended) A punching device according to claim 7 +0,
wherein a speed of the movement of said operating member in the initializing operation is lower
than that in the punching operation.

12. (Currently Amended) A punching device according to claim 7 +0,
wherein said operation control means stops the operation of said drive means if said position
detection means does not detect the movement of said operating member after a lapse of a
predetermined period of time from the time at which said operation control means starts the
operation of said operating member.

13. (Original) A punching device according to claim 12, wherein the
predetermined period of time in the case of the initializing operation is longer than that in the
case of the punching operation.

14. (Currently Amended) A sheet processor comprising a punching device
for punching holes in the sheet according to any one of claims 1 to 8 and 11 to 13.

15. (Currently Amended) An image forming apparatus comprising:

As concluded

image forming means for forming an image on a sheet; and

a punching device for punching holes in the sheet according to any one of

claims 1 to 8 and 11 to 13.

(Please add Claims 16-19 as follows:)

--16. (New) A punching device according to claim 1, wherein a third rest position is arranged on an opposite side of the first rest position with respect to the second rest position, and said operating member is movable in the first rest position, second rest position and the third rest position,

AJ and wherein said control means performs an initializing operation in which said operating member is moved to the second rest position when said operating member is located between the second rest position and the third rest position and said operating member is located near the third rest position rather than the second rest position, and said operating member is moved to the third rest position when said operating member is located between the second rest position and the third rest position and said operating member is located near the second rest position rather than the third rest position.

17. (New) A punching device according to claim 16,

wherein said operating member is movable in a moving area sectioned in order of a first rest area, a first punching area, a second punching area, a second rest area, a third punching area, a fourth punching area, and a third rest area, on the basis of a detection operation

performed by means for detecting the position of said operating member under the control of operation control means for controlling said drive means;

wherein said operation control means performs, on the basis of the detection operation of said position detection means, an initializing operation for moving said operating member to the second rest area when said operating member is located in the first rest area or in the first punching area, for moving said operating member to the first rest area when said operating member is located in the second rest area or in the second punching area, for moving said operating member to the third rest area when said operating member is located in the second rest area or in the third punching area, and for moving said operating member to the second rest area when said operating member is located in the third rest area or in the fourth punching area.

18. (New) A punching device according to claim 16,

wherein said operating member is movable in a moving area sectioned in order of a first rest area, a first punching area, a second punching area, a second rest area, a third punching area, a fourth punching area, and a third rest area, on the basis of a detection operation performed by means for detecting the position of said operating member under the control of operation control means for controlling said drive means;

said operating member punches a first number of holes in the member to be punched with the corresponding number of said punch member when said operating member performs in the first punching area a punching operation for causing the corresponding number of said punch members to advance into the corresponding die holes during its movement from the first rest area to the second rest area, and when said operating member performs in the second

punching area a punching operation for causing the corresponding number of said punch members to advance into the corresponding die holes during its movement from the second rest area to the first rest area; and

Continue

said operating member punches a second number of holes in the member to be punched with the corresponding number of said punch members when said operating member performs in the third punching area a punching operation for causing the corresponding number of said punch members to advance into the corresponding die holes during its movement from the second rest area to the third rest area, and when said operating member performs in the fourth punching area a punching operation for causing the corresponding number of said punch members to advance into the corresponding die holes during its movement from the third rest area to the second rest area.

19. (New) A punching device according to claim 18, wherein a speed of the movement of said operating member in the initializing operation is lower than that in the punching operation.--
